

PRODUCT DATA SHEET

Sikagard®-75 EpoCem®

Special epoxy/cement combination mortar

PRODUCT DESCRIPTION

Sikagard®-75 EpoCem® is a high-performance, three-component, solvent-free, moisture-tolerant, epoxy-modified, cementitious, structural resurfacing compound and pore-filling mortar.

USES

- On green or damp concrete having a maximum moisture content of 12 % by weight.
- As a temporary moisture barrier prior to the application of polymer protective coatings.
- As a pore sealing leveling mortar, especially for use on secondary containment structures.
- Ideal for the repair of damp or saturated substrates such as sewage treatment plants, water treatment plants, tanks, tunnels, drains, bridges, etc.
- On grade, above and below grade on concrete.

CHARACTERISTICS / ADVANTAGES

- Economical structural repair and resurfacing compound for vertical and horizontal surfaces.
- Easy-to-use, fast-setting, labor-saving system.
- Solvent-free and virtually odorless.
- Can be over-coated with polymer based coatings after 24 hours.*
- Eliminates effects of osmotic blistering.
- No on-site batching, plant-proportioned packaging ensures constant composition and consistent high quality.
- Self-priming.
- Waterproof, yet permeable to water vapor.
- Compatible with coefficient of thermal expansion of concrete.
- Excellent adhesion to damp concrete substrate.
- Excellent mechanical strength.
- Excellent resistance to water and oils.
- Will not corrode reinforcement steel.
- High abrasion resistance.

* Moisture level of EpoCem must be less than 4 % by weight prior to application of polymer coating.

PRODUCT INFORMATION

Packaging	Component A+B 1.02 gal (4 kg) kit	Component C 42 lb (19 kg) bag
Appearance / Color	Dark gray	
Shelf Life	12 months from date of production if stored properly in original, unopened and undamaged sealed packaging	
Storage Conditions	Store dry at 40–95 °F (4–35 °C) Protect Component A and B from freezing. If frozen, discard. Protect Component C from moisture. If damp, discard. Condition material to 65–85 °F (18–29 °C) before using.	

TECHNICAL INFORMATION

Abrasion Resistance	28 days	0.3	(ASTM D-4060)
Compressive Strength	1 day	2,000 psi (13.8 MPa)	(ASTM C-579B)
	7 days	6,000 psi (41.4 MPa)	73 °F (23 °C)
	28 days	7,000 psi (48.3 MPa)	50 % R.H.
Flexural Strength	28 days	1,500 psi (10.3 MPa)	(ASTM C-293)
Tensile Adhesion Strength	28 days	400 psi (2.8 MPa) (mostly substrate failure)	(ASTM C-1583)
Coefficient of Thermal Expansion	5.5 X 10 ⁻⁶ in./in./F		(ASTM C-531)
Permeability to Water Vapor	7 days	0.06 perms	(ASTM E-96)

APPLICATION INFORMATION

Mixing Ratio	Plant-proportioned kit, mix the entire unit is recommended.		
	<u>Parts by weight</u>		
	Component A	Component B	Component C
	1	2.73	15–17.7*
	* Depending on consistency required.		
Coverage	65 ft ² /unit, when applied to its required thickness of 80 mils (2 mm) (Coverage figures do not include allowance for surface profile and porosity or material waste)		
Ambient Air Temperature	46–90 °F (8–32 °C)		
Substrate Temperature	46–90 °F (8–32 °C)		
Pot Life		50 °F (10 °C)	68 °F (20 °C)
	A+B+C	45 min	35 min
Waiting / Recoat Times	Maximum 3 days at 68 °F (20 °C)		
		50 °F (10 °C)	68 °F (20 °C)
Curing Treatment		86 °F (30 °C)	
	Top coat with epoxy resin	1 day	18 hrs
	Light mechanical loading	3 days	2 days
	Final cure	14 days	7 days

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

- Surface must be clean and sound.
- Remove all deteriorated concrete, dirt, oil, grease, and other bond-inhibiting materials from the area to be repaired.
- Preparation work should be done by sandblast, shotblast or other appropriate mechanical means to obtain an open-pore and textured (CSP-4).
- To ensure optimum repair results, the effectiveness of

decontamination and preparation should be assessed by a pull-off test.

- Sandblast steel to white metal finish.
- Substrate should be Saturated Surface Dry (SSD) with clean water prior to application. No standing water should remain during application.

PRIMING

- **Reinforcing steel:** Steel reinforcement should be thoroughly prepared by mechanical cleaning to remove all traces of rust. Where corrosion has occurred due to

the presence of chlorides, the steel should be high pressure washed with clean water after mechanical cleaning. For priming of reinforcing steel use Sika® Armatec® 110 EpoCem (consult PDS).

- **Concrete Substrate:** Prime the prepared substrate with a brush or sprayed applied coat of Sika® Armatec® 110 EpoCem (consult PDS). Alternately, a scrub coat of Sikagard®-75 EpoCem® can be applied prior to placement of the mortar. The repair mortar has to be applied into the wet scrub coat before it dries.

MIXING

- Pre-mix Component ‘A’ and Component ‘B’ by shaking well in their respective containers.
- Empty entire contents of Component ‘A’ and Component ‘B’ into a clean, dry 5 gallon mixing pail.
- Mix thoroughly for 30 seconds using a Sika paddle on a low-speed drill (400–600 rpm).
- Slowly add the entire contents of Component ‘C’, while continuing to mix for 3 minutes, until blend is uniform and free of lumps.
- Mix only that quantity which can be applied within its pot life.

APPLICATION

- At the time of application, surface should be SSD with no standing water.
- Sikagard®-75 EpoCem® can be applied with a spatula or trowel to dry or prepared substrates.
- A lightly moistened rubber sponge float or mason brush may be used as required to provide a fine surface texture.
- To repair surface irregularities and holes deeper than 80 mils (2 mm), consult Technical Service Limitations

LIMITATIONS

- Do not dilute with water.
- Maximum relative humidity: 75 %
- Maximum moisture content of the concrete 12 % by weight.
- Do not use on surfaces exhibiting hydrostatic pressure.
- Do not use over positive vapor pressure.
- Maximum moisture content of EpoCem layer 4 % by weight prior to the application of a polymer based coating.
- As with all cement based materials, avoid contact with aluminum to prevent adverse chemical reaction and possible product failure. Insulate potential areas of contact by coating aluminum bars, rails, posts etc. with an appropriate epoxy such as Sikadur Hi-Mod 32.
- Not a vapor barrier.

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BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.



Product Data Sheet
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OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates (“SIKA”), the user must always read and follow the warnings and instructions on the product’s most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA’s Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product’s shelf life. User determines suitability of product for intended use and assumes all risks. User’s and/or buyer’s sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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